Sept. 6, 1960 H. W. MAURER 2,951,528

TILT-BACK ROCKING CHAIR

Filed June 30, 1955

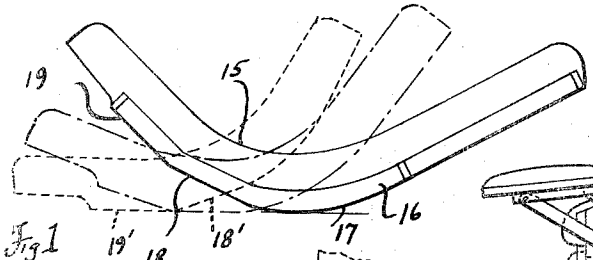


Fig 1

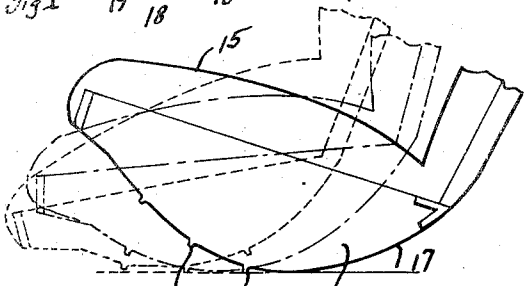


Fig 2

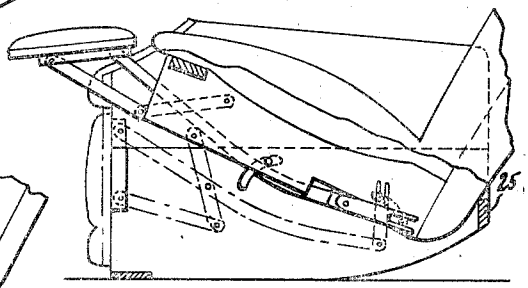


Fig 7

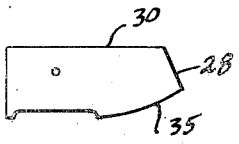


Fig 8

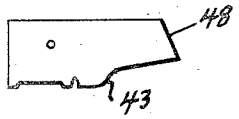


Fig 9

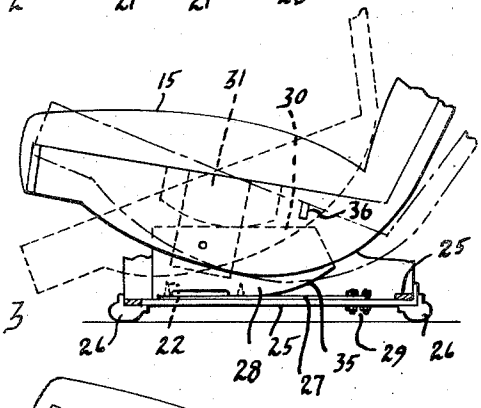


Fig 3

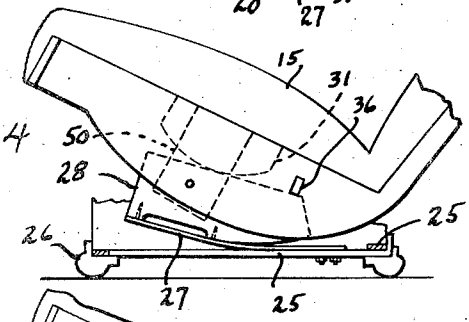


Fig 4

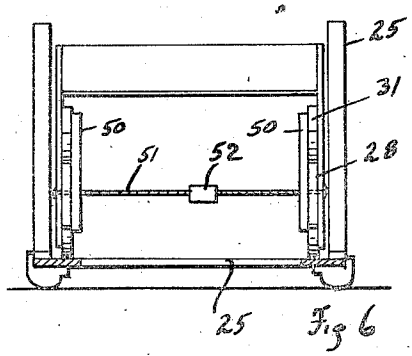


Fig 6

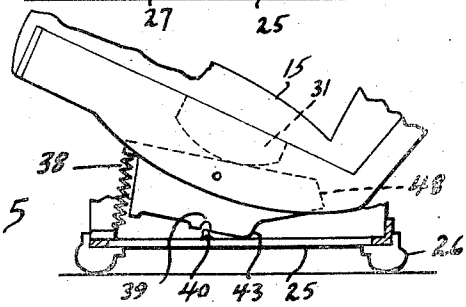


Fig 5

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TILT-BACK ROCKING CHAIR

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4 Claims. (Cl. 155—71)

This invention pertains to a tilt-back rocking chair, to a lounge or to any of the tilt chairs with foot stool extensions wherein the occupant can assume one or more fixed, stable, nonrocking positions or he may, by shifting his weight, assume a rocking position while the chair is tilted backwardly; and it also applies to chairs, lounges or tilt chairs wherein the occupant may rock in a forward position and tilt back into one or more fixed, stable, non-rocking positions.

An object of the invention is to provide a tilt-back rocking chair or lounge which can be changed from a forward stable position to a rearward rocking position by the occupant thereof merely shifting his weight rearwardly in the chair, or which can be changed from a forward rocking position to a rearward stable position by the occupant shifting his weight rearwardly in the chair.

Another object of the invention is to provide a tilt-back rocking chair which can be changed from one to another stable position and into a tilted rocking position by the occupant thereof shifting his weight.

A further object of the invention is to provide a chair which will rock in a tilted-back position.

For a better understanding of the present invention, together with other and further objects thereof, reference is had to the following description taken in connection with the accompanying drawings, and its scope will be pointed out in the appended claims.

With reference to the single sheet of drawing:

Figure 1 is a side view of a simple form of chair embodying the invention, rocking on a floor.

Figure 2 is a side view of a portion of a chair showing a modified form of the invention.

Figure 3 is a side view of a portion of a friction type tilt-back chair showing still a third modification of the invention in one of its normal tilt and non-rocking positions.

Figure 4 is a side view of the chair shown in Fig. 3 but in rocking position.

Figure 5 is a view similar to Fig. 4 but showing a modified one point rocking and spring suspension.

Figure 6 is an end view of the chair shown in Figs. 4 and 5 showing a frictional device holding the chair for fixed positions.

Figure 7 is a side view of still another modification of the invention.

Figure 8 shows the leg member of Figs. 3 and 4, and Figure 9 shows a leg member for use in the device of Fig. 5.

An aspect of the present invention lies in the provision of a tilt-back chair, or lounge, which will maintain one or more fixed positions and which can easily be converted into a tilt-type rocking chair by the occupant shifting his weight in the chair; for example, the chair may have one or more fixed forward positions and it may be changed into a tilt-back rocking chair by the occupant shifting his weight rearwardly, or it may have one or more fixed rearward positions and may be placed into its tilt position by the occupant shifting his weight

forwardly. This aspect is fulfilled by the provision of a seat portion which the occupant occupies, and means connected to the seat for supporting it above the floor. The supporting means include a rocker which is arcuate in shape at its rear end and which has at least one means forward of the arcuate portion which, when it is in engagement with the floor, maintains the chair and the occupant in a stable, non-rocking position.

One form of such a device is shown in Figure 1, where the seat portion is identified by reference character **15** and the means connected to the seat for supporting it above the floor is a rocker identified by the reference character **16**. The rocker **16** has a rear arcuate portion **17** and forward thereof are two flat portions **18** and **19**. When the tilt-back rocking chair is resting on the flat portion **18** it occupies the position shown by dotted lines **18'**, and when it is resting on the flat portion **19** it occupies the position **19'**. Both of these forward positions are stable, non-rocking positions, but the occupant of the chair can, by leaning back in the seat, move the chair from position **19'** to **18'** and when the occupant leans back a little further the chair is then supported on the arcuate part **17** of the rocker and the occupant can then rock. It is within the scope of this invention to have the rocker portion forward of the stable portions and to have the occupant convert the chair to a rocker by moving his weight forward.

As shown in Figure 2 the seat **15** may be supported on two spaced apart side rockers **20** which have an arcuate rear portion **17**, as shown in Figure 1. Forward of the arcuate portion, however, the support has several spaced apart raised portions **21**. When the chair is in a forward position the two adjacent raised portions engage the floor and form a stable, non-rocking position, but when the occupant leans back in the seat the chair moves out of its stable position onto its rear arcuate section **17**, and thereafter the chair can be rocked by the occupant.

Figure 3 shows a rocking tilt-back chair which is mounted on a base rather than directly on the floor. The seat **15** may be similar to the seats in Figures 1 and 2. The base is a frame **25** to which feet **26** are connected. One or more flat leaf springs **27** are connected at their rear ends to the frame **25** by means of bolts **29** and are connected at their forward ends to one or more legs **28** by means of screws **22**. Thus the legs **28** can rock on their arcuate portions with respect to the frame **25**. Preferably two spaced-apart legs **28** are used, one on each side of the chair, and each of the legs has a flat top portion **30**. A pair of side plates **31** are secured to the seat **15**, one on each side thereof, and the bottom edge of each of these side plates **31** is arcuate. Thus an occupant of the seat can shift his weight, causing the side plates **31** to roll along the top edge of the legs **28**, for various frictionally controlled fixed tilt positions whose tilt may be controlled by means shown in Figure 6, or by additional means shown in my patent application Serial Number 297,450, filed July 7, 1952, for a tilt-back chair. Additionally, if the occupant wants to tilt back he shifts his weight to the rear of the seat **15**, causing the legs **28** to rock back freely to and fro on their arcuate lower edges **35** against the bias of the spring, or springs **27**. Even in the tilted-back position achieved by relative motion between the side plates **31** and legs **28**, the occupant can continue his rocking motion. Thus by merely shifting the center of location of his weight in the chair the occupant can determine how far back he wants to tilt, and by an oscillatory shifting of his weight he can then rock his chair in such tilted position.

Figure 4 shows the chair of Figure 3 in its extreme rearwardly tilted position with a fixed stop **36** which is connected to the frame of the chair in engagement with

the flat top portion of the legs **28** limiting the further tilt motion thereof. In this extreme tilt position the occupant can freely rock his chair, and by forward shifting of his weight he can reenter a controlled tilt position.

Figure 5 shows a tilt-back rocking chair somewhat similar to that shown in Figure 4 except that the flat spring **27** therein is replaced by a coiled tension or compression spring **38** which performs in a manner similar to the spring **27**. In this embodiment legs **48** have a rounded point **43** on which tilting backwards occurs instead of rocking as shown in Figure 3. A notch **39** is provided in the lower edge of the legs **48**, and a raised portion **40** on the frame **25** extends into the notch to prevent the legs **48** from sliding forward or backward with respect to the frame of the chair.

In the embodiments shown in Figures 3, 4, and 5 an example of an adjustable frictional device is shown. This device, as well as other types, may be used to control the tilt-back position. Such a frictional device is further shown in Figure 6. This and other adjustable frictional devices are more completely shown, described and claimed in my previously mentioned patent application. Briefly it consists of a pair of frictional plates **50** which are interconnected by a double threaded screw device **51** having a turnbuckle **52**. The frictional plates **50** engage the side faces of the legs **28** and the side plates **31** holding them from sliding with respect to each other, and as the turnbuckle **52** is turned in one direction increasing frictional forces are exerted against the legs **28** tending to hold them tighter with respect to the side plates **31**. Upon the turnbuckle **52** being turned in the opposite direction the frictional forces are released making it easier for the occupant to adjust his tilt position. The frictional device does not alter the ease with which the chair may be rocked.

Figure 7 shows a chair of the tilt-back rocker type whose construction is somewhat similar to that shown in Maurer Patent 2,604,141. However, the present chair is adapted to rock in a tilt-back position due to the arcuate portions of the frame **25**.

While there have been described what are at present considered to be the preferred embodiment of this invention, it will be obvious to those skilled in the art that various changes and modifications may be made therein without departing from the invention, and it is, therefore, aimed in the appended claims to cover all such changes and modifications as fall within the true scope and spirit of the invention.

What is claimed is:

1. A tilt-back rocking chair comprising, in combination; a base adapted to rest on a floor; a seat portion; means supporting said seat portion on said base including a pair of spaced apart legs mounted on said base for rocking motion with respect thereto and also having a stable position with respect to said base, said legs each having a top edge, a pair of side plates connected to either side of said seat portion and each having an underneath edge mounted respectively on the top edge of one of said legs, one of said edges being arcuate whereby an occupant in said seat can tilt the seat and the side plates with respect to said base and the legs, and the occupant by shifting his weight back and forth in the seat can cause the side plates and the seat portion to rock in respect to the spaced apart legs and to the base, and means for selectively securing together said legs mounted on said base and said side plates whereby thereafter the rocking motion takes place between said spaced apart legs and said base.

2. A tilt-back rocking chair as set forth in claim 1, further characterized by flat spring means mounted between said base and said pair of legs, means connecting the rearward end of said spring means to said base and means connecting the forward end of said spring to said legs.

3. A tilt-back rocking chair as set forth in claim 1, further characterized by a coil spring one end of which is connected to the front edge of one of said legs and the other end of which is connected to said base, and means for preventing the legs from sliding forward with respect to said base.

4. A tilt-back rocking chair as set forth in claim 1, further characterized by adjustable friction means exerting frictional forces on said side plates and on said legs for selectively securing them together.

References Cited in the file of this patent

UNITED STATES PATENTS

98,929	Crandall	Jan. 18, 1870
1,154,021	Hunzinger	Sept. 21, 1915
1,303,994	Ulmann	May 20, 1919
2,008,611	Haug	Sept. 20, 1935
2,244,614	Fox	June 3, 1941
2,482,306	Waldheim	July 16, 1949
2,560,963	Kornegay	July 17, 1951
2,604,141	Maurer	July 22, 1952

FOREIGN PATENTS

744,567	France	Jan. 26, 1933